WE CLAIM:

1. A label feeder for transporting an adhesive-backed label on a label liner, separating the label from the label liner, and presenting the separated label for retrieval, comprising:

a frame;

a separator disposed on said frame and presenting an edge underlying the label liner for separating the label from a label liner with the label adhesive backing side facing toward the liner; and

a roller platform including a plurality of rollers disposed on said frame and facing the adhesive backing side of the label for receiving and supporting said separated label on the adhesive surface thereof, wherein at least two of said plurality of rollers include a plurality of circumferential ridges for supporting the label.

2. A label feeder in accordance with claim 1 wherein said label liner is a continuous ribbon bearing a plurality of labels sequentially distributed along the length of said ribbon, further comprising:

a web path along said frame passing around said separator and past said platform along which said label liner is movable;

a tensioner in said web path ahead of said separator; and

drive means for pulling said label liner along said web path.

3. A label feeder in accordance with claim 2 further comprising:

means in said web path for holding and unwinding a roll of linered label stock; and

means in said web path for winding a roll of label liner after labels are removed therefrom.

4. A label feeder in accordance with claim 2 wherein said drive means includes a pair of nip rollers disposed respectively one on either side of said web path to engage said label liner therebetween, at least one of said nip rollers being driven.

5. A label feeder in accordance with claim 4 wherein at least one of said nip rollers is provided with axial flutes along the roller surface to grip said label liner.

6. A label feeder in accordance with claim 4 wherein said at least one of said nip rollers is driven by a stepper motor.

7. A label feeder in accordance with claim 2 further comprising a sensor for sensing the presence and absence of a peeled label on said platform.

8. A label feeder in accordance with claim 7 wherein said sensor is an infrared reflective sensor positioned adjacent an end of said platform so as to sense the presence and absence of a lead-edge of the peeled label on said platform.

9. A label feeder in accordance with claim 7 further comprising a programmable controller receivable of input from said sensor for controlling operation of operating elements of said feeder.

10. A label feeder in accordance with claim 1 wherein said roller platform supports a label of a predefined length, and where said roller platform comprises a plurality of rollers spaced apart from one another, and a total length of the platform is less than the predefined length of the label.

11. A label feeder in accordance with claim 1 wherein each roller in said roller platform has steps over a portion of its surface to provide at least two circumferential ridges having a diameter greater than the diameter of said stepped portion for supporting said label.

12. A label feeder in accordance with claim 10 wherein said roller platform supports the label on a portion of its adhesive side at a plurality of locations distributed evenly across the entire width of the label and less than the predefined length of the label.

13. A label feeder in accordance with claim 1 wherein each roller in said roller platform has steps over a portion of its surface to provide at least four circumferential ridges having a diameter greater than the diameter of said stepped portion for supporting said label, and where each ridge has an outer periphery that is rounded.

14. A label feeder in accordance with claim 11 wherein the circumferential ridges are radiused.

15. A label feeder in accordance with claim 11 wherein the total width of the circumferential ridges is less than 5 percent of the overall width of the label.

16. A label feeder in accordance with claim 11 wherein the width of each of said plurality of circumferential ridges on a roller is less than 25 percent of a separation distance between adjacent ridges on the roller.

17. A label feeder in accordance with claim 15 wherein said plurality of circumferential ridges on said stepped rollers are spaced at a distance of at least 10 percent of the length of the roller.

18. A label feeder in accordance with claim 14 wherein said ridges on adjacent of said rollers are axially offset from adjacent of said ridges on adjoining rollers.

19. A label feeder in accordance with claim 18 wherein said ridges on adjacent of said rollers are interleaved with adjacent of said ridges on adjoining rollers.

20. A label feeder in accordance with claim 10 wherein said at least one roller is substantially non-adherable to said adhesive-backed label over at least a portion of said roller surface contactable with said adhesive.

21. A label feeder in accordance with claim 20 wherein said portions of said roller contactable with said adhesive comprise a substantially non-adherable material.

22. A label feeder in accordance with claim 21 wherein said nonadherable material is a fluorocarbon polymer.

23. A label feeder in accordance with Claim 20 wherein said roller is formed of a substantially non-adherable material.

24. A label feeder in accordance with Claim 23 wherein said nonadherable material includes a fluorocarbon polymer.

25. A label feeder for separating an adhesive-backed label from a label liner and presenting the peeled label for acquisition by a pick-and-place machine, comprising:

a frame;

a peeler edge disposed on said frame for peeling a label from a label liner;

a roller platform comprising a plurality of rollers disposed on said frame for receiving, conveying, and supporting said peeled label, at least one of said rollers being undercut over a portion of its surface to provide a plurality of circumferential ridges having a diameter greater than the diameter of said undercut portion, at least one of said rollers being substantially non-adherable to said adhesive-backed label over at least a portion of said circumferential ridges contactable with said adhesive;

a web path along said frame passing around said peeler edge and past said platform along which said label liner is movable;

a tensioner in said web path ahead of said peeler edge;

drive means for pulling said label liner along said web path around said peeler edge, said drive means including a pair of nip rollers disposed respectively one on either side of said web path to engage said label liner therebetween, at least one of said nip rollers being driven;

a sensor for sensing the presence and absence of a peeled label on said platform; and

a programmable controller responsive to signals from said sensor for controlling operation of operating elements of said feeder.

26. A method for providing a peeled, adhesive-backed label from a roll of linered label stock using a path for conveyance of the stock, comprising the steps of:

advancing the label stock along said web path using label stock drive means;

separating the label from the label liner using a separating edge underlying the label liner;

receiving the label on a platform including a plurality of ridged rollers, wherein the adhesive-backed surface of the label contacts the ridges of the rollers;

using a sensor, sensing the presence and absence of a separated label on said platform and communicating said presence and absence to said drive means;

in response to a label absence signal from said sensor, energizing said drive means to advance the label stock around said separating means to separate a label from said stock; and

in response to a label presence signal from said sensor, de-energizing said drive means to arrest further advance of the label stock.

27. The method of claim 26, wherein the drive means includes a stepper motor operatively coupled to a pair of capstan rollers, and where the step of advancing the label stock comprises the step of energizing the stepper motor to rotate through incremental steps so as to cause the rotation of the capstan rollers that have the label liner engaged therebetween, until receiving a signal to stop driving the label liner in response to the label presence signal.

28. The method of claim 27, further comprising the step of crimping the label stock using meshing flutes on said pair of capstan rollers so as to positively drive the label liner through a roller nip between the pair of capstan rollers.

29. A surface mount assembly system, including:

means for presenting a substrate to be populated with one or more components on a surface thereof;

a plurality of component feeders operatively associated with the surface mount assembly system, for presenting components at respective component pick-up locations;

a robot for retrieving the components from said component feeders at the respective pick-up locations and placing the components on the surface of the printed circuit board;

wherein at least one of said component feeders is a label feeder for feeding a label on a label liner to the respective pick-up location for retrieval by the robot, and where said label feeder comprises

a frame,

a separator presenting an edge underlying the label liner for separating the label from the label liner; and

a roller platform including a plurality of rollers disposed on said frame for receiving and supporting the label, wherein at least two of said plurality of rollers include a plurality of circumferential ridges for supporting the label.

30. The surface mount assembly system of claim 29, wherein the label is an adhesive-backed label, where the roller platform includes rollers facing the adhesive backing side of the label for receiving and supporting the adhesive side thereof, and where the circumferential ridges support the adhesive-backed label while reducing the adhesion of the label to the rollers.

31. A method for assembling a printed circuit board assembly in a surface mount assembly system, including the steps of:

presenting a substrate to be populated with one or more components on a surface thereof;

presenting, on a plurality of component feeders operatively associated with the surface mount assembly system, components for retrieval at respective component pick-up locations;

automatically retrieving the components from said component feeders at the respective pick-up locations and placing the components on the surface of the printed circuit board;

wherein at least one of said component feeders is a label feeder for feeding a label on a label liner to the respective pick-up location for retrieval by the robot, and where said label feeder executes steps comprising

separating the label from the label liner using a separator edge underlying the label liner; and

receiving and supporting the separated label on a roller platform including a plurality of rollers, wherein at least two of said plurality of rollers include a plurality of circumferential ridges for supporting the label.